Imagination and Strategy.

From the London Chronicle.

Munitions are the talk of the day, and while Mr. Lloyd George is expounding his plan for the speedier ending of the war there comes the fictionist as his rival. Mr. H. G. Wells has promulgated his own plan. Two thousand aeroplanes suitably loaded, engaged on a daily service of destruction to Germany. Essen could be smashed to bits. We could take the enemy in the rear, in the spinal cord of his mechanism and paralyze him. And it would be comparatively cheap. There is a fine touch of imagination.

Our novelists and dreamers, it must be admitted, have shown considerable foresight in regard to present happenings. There is a whole library of imaginative forecasts of the great war. But Mr. Wells certainly takes first place in his anticipations of the war in the air and the use of poisonous gases. One might do worse than appoint a board of imaginative persons who have qualified in the matter of prophetic foresight to suggest and advise concerning any stimulating method of conflict. Indeed, one wonders what would have happened if some imaginative personage had made Mr. Wells head of the war office. But perhaps that is too imaginary.

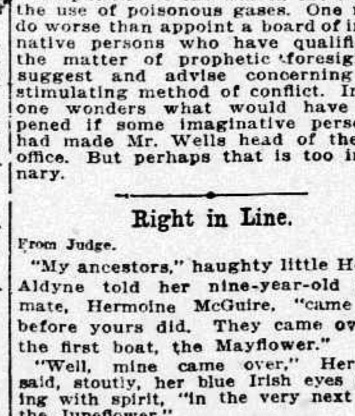
Right in Line.

From Judge.

"My ancestors," haughty little Heloise Aldyne told her nine-year-old playmate, Hermoine McGuire, "came over before yours did. They came over in the first boat, the Mayflower."

"Well, mine came over," Hermoine said, stoutly, her blue Irish eyes flashing with spirit, "in the very next boat, the Juneflower."

FAR FROM UNANIMOUS.



Old Flintskinner—"This beautiful weather makes me feel glad just to be alive."

Young Outspoke—"That's queer. It doesn't make any one else feel glad you're alive."

WHAT THE BOY SCOUTS ARE DOING

Vernon Bailey, scoutmaster of Troop 39, has been elected president of the Scoutmasters' Club, succeeding Dr. Ashley.

Mr. Bailey is one of the best known and best liked scout officers of Washington. He is chief field naturalist of the biological survey and each year spends several months traveling in the west. The hikes taken by his troop

VERNON BAILEY.

are always looked forward to with great interest by its members, for Mr. Bailey usually gives an interesting talk on birds, animals and insects while en route.

Scouts Are Thanked.

A letter has been received by local headquarters from the National Civic Federation thanking the Boy Scouts of Washington for the services Sunday, December 5, at Masonic Temple, when they acted as ushers and guides.

Study Sea Scouting.

Last Thursday evening twelve scouts were present at the Naval Battalion. After a trip aboard to see the Sylvia they were given instructions in rope work by Chief Boatswain's Mate Rooney. They then had a talk on the compass and watched the Naval Battalion boys signaling by flashlight. Meetings are held every Thursday night.

Swimming Test Notice.

Notice has been sent out by headquarters that in the future any second-class scout intending to qualify for the first-class swimming test will note that the first and third Monday evening of each month will be devoted to giving tests at the Y. M. C. A. swimming pool. E. B. Fuller will be the examiner.

News From the Troops.

Communications have been received from troop scribes as follows:

Troop 21.

Last Friday at 4 p.m. while holding our meeting around a campfire our scoutmaster surprised us by appearing with Field Executive J. W. Patton, who was introduced to us. Then we went to our own troophouse, where Mr. Patton gave us a rousing good talk. Four new boys were proposed for membership. They were also voted on. Patrol Leader Gatley took the boys for a hike last Saturday.

Troop 1.

It was with sincere regret that headquarters announced the resignation of Mr. E. W. Shaw as scoutmaster. However, he has volunteered to act as assistant scoutmaster. The troop has obtained F. E. Matthes as its new scoutmaster. Troop 1 will have the advantage of Mr. Matthes' invaluable knowledge of map making and reading.

Troop 32.

The troop met Friday, December 10, at the residence of Mr. Robb, chairman of our troop commitee. Mr. Robb took the troop on a hike to Forest Glen, where a good time was enjoyed. At the meeting we appointed the officers of the troop and formed patrols accordingly. Several new members have joined lately. Refreshments were served as a surprise to the scouts.

Troop 54.

A most enthusiastic meeting took place last Friday evening at the schoolhouse, the entire troop being present. The occasion was the presentation of a troop flag by Field Executive Taylor. He gave the scouts a short talk. He expressed himself as being highly pleased by the fine showing made by Troop 54, both at the scout parade and the promptness with which it responded to the registration of the troop. Twenty-seven boys were registered within thirty days from the day of formation. The troops was formally sworn in and tenderfoot pins awarded.

Troop 55.

Last Saturday Ralph J. Campbell, our new scoutmaster, took several of the boys in company with several other troops on a short afternoon hike along the Virginia shore. A campfire was started and sausages were soon toasting before the fire. All the boys voted that is was a big success. Field executives Patton and Taylor also went along. Several newsboys have applied for membership, and after the new year the troop will be in full swing, holding its meetings at the Waugh M. E. Church, 3d and A streets northeast.

Troop 46.

Lieut. George Carr Round of Manassas, Va., who was signal officer of Gen. Scofield's headquarters during the civil war, spoke at Foundry M. E. Church last Wednesday week to the members of Troop 46. He gave the history of the wig-wag system of signals invented in 1858 by Albert J. Myer of the United States Navy, and gave demonstrations.

Troop 6.

Field Executive Patton gave the boys of Troop 6 an interesting talk at a meeting of the troop at the Noel House last Saturday night. Wood had been obtained and he gave a demonstration of several different ways of making fires, including the "squaw," the "log cabin council fire," "cook fire" and the "flap jack," explaining the uses of each. He then told us some true campfire stories. Plans for the winter were discussed by the troop. Two new yells which he had shown us were practiced by the troop. After the meeting had adjourned we went up in the nearby woods and built a real campfire. Troop 6 plans to have an active winter.

GIRL SCOUT NOTES.

Girl Scouts are much interested in the Christmas party at which they are to be hostesses for the children of the special schools of the city next Thursday. Desiring to prove that they are "little sisters" to all of the world and to show what Girl Scouts can do in the line of good deeds, they asked the privilege of giving the Christmas dinner at each one of the six centers of atypical and ungraded schools. These schools were selected because in them school luncheons are served hot daily, and because the Christmas dinner at these schools is made an event of pleasure and is usually the gift of the teachers and their friends.

There is now an enrollment of 199 children and none is to be overlooked. The twenty-two active scout troops are all busy, for each troop is doing its share to make the parties a success. One article on the day's menu is given to each troop to supply.

Three or four girls from each troop will be selected by the captain to accompany her and serve as hostess. A regular turkey dinner, with all of the proper trimmings, will be served and and fruit and candy bags distributed.

The executive board of the Girl Scouts Association of the District urges upon the scouts the request of Mrs. Archibald Hopkins, who wants them all to visit the Red Cross headquarters to see the work of the surgical dressings committee. They are also urged to begin the collecting of old and waste material, which the committee can use and which is just what no one else wants to keep on hand.

It is planned that after the holidays the scouts will take up the preparing of some one article under the instruction which they have already had.

Troop 1—Mrs. G. S. Rafter, Captain.

After semaphore drill and gymnasium practice, Troop 1 adjourned to the home of the captain, where Mrs. Archibald Hopkins, president of the woman's department of the National Civic Federation, gave an address on the work of the surgical dressings committee, in co-operation with the Red Cross. Mrs. Hopkins explained in detail all of the various dressings, the construction of the pads and pillows and urged the scouts of Troop 1 to pass on the information she gave to them to all of the other troops. She said: "We can use anything that no one else wants, just so it is clean and white. Rags of any description, old blankets, old bed and table linen, old underwear, old bath toweling and worn bedspreads, bits of carpet for slippers, excelsior and oakum are all useful. Any of it will be welcome and put to use if sent to 1623 H street northwest. Mrs. Hopkins also urged the scouts to begin collecting these bits of waste, and also to make small pillowcases of the pillows. She also requested the scouts to visit the rooms of the committee and see for themselves how these things are made so that they may go to work intelligently themselves to aid in this project.

Tea was served by the girls. Two new girls were admitted to the troop. They were Louise Williams and Josephine Childs.

EVELYN MILLARD, Secretary.

Troop 3—Mrs. W. Bowyer Pain, Captain.

Troop 3 held its last meeting at the home of Mrs. Barker. All of the girls passed their tenderfoot examination and Mrs. Henry T. Rainey, president of the Washington Girl Scouts, presented the pins. Miss Neal, national secretary, made a brief address and Mrs. Rafter, national vice president, spoke to the parents on the value of the scout movement. Refreshments were served by the girls.

Troop 6—Mrs. S. A. Mooers, Captain.

Thirteen members responded to roll call at the last meeting of Troop 6 last Friday at the residence of the captain. The meeting opened with a prayer said in unison by the girls. Gertrude Coon was elected patrol leader of patrol 1 and Mary Mikesell, corporal, both of whom will serve until the election in March.

Plans were made to devote next Friday's meeting to distributing Christmas baskets to poor families and also to making bandages for the Red Cross.

GERTRUDE COON, Scribe.

Troop 10—Mrs. F. P. Wilcox, Captain.

The members of Troop 10 met at the home of their captain, Mrs. Wilcox, last Thursday, when Miss Letitia Nelson, a trained nurse, graduate from Victoria General Hospital, Halifax, Nova Scotia, gave the troop instruction in the dressing of burns.

Troop 11—Mrs. Norman Jones, Captain.

Troop 11 has planned a tree for Christmas. All of the scouts have drawn names and each girl will get some present.

One dollar was donated by the troop for a Thanksgiving turkey for an old couple in the community, and letters of sympathy were sent to a sick scout.

FLORENCE DERRICK, Secretary

Troop 19—Mrs. H. N. Stailey, Captain.

Troop 19 met again last Thursday afternoon after missing two meeting dates, one on account of Thanksgiving and the next one because of the illness of the captain. The girls, who are preparing for their second class tests, brought their crochet work and needles and made them fly in and out on Christmas presents while they went through the routine of business.

A favorable report was made by the girls on the amount of money they had raised toward their uniforms.

Troop 20—Mrs. Leon Arnold, Captain.

The regular meeting of Troop 20 was held last Thursday in the scout rooms of St. Mark's. This troop had become so large that it was considered advisable to divide it. Mrs. Leon Arnold has taken the captaincy of one part, with Miss E. Pansy Barbour as lieutenant, while Mrs. Chester Pyles has taken the balance of the girls and is forming Troop 7, filling a vacancy.

Troop 20 held an election of officers, with the following results: Eloise Thomas, patrol leader of first patrol; Maud Warner, corporal, first patrol; Marian Saunders, patrol leader, No. 2; Mildred Thomas, corporal, No. 2; Maud Bayles patrol leader of No. 3; Lillian Tarkington, corporal, No. 3. Zella Nelson was made secretary; the treasurer, Alice Ashford, and the scribe, Maud J. Bayles. L. B. Miller of the naval militia gave the test in semaphoring. Those who passed successfully were Dorothy Pickells, Maude Bayles, Mildred Mooney, Maud Wraner, Mildred Thomas, Alice Ashford, Marian Saunders, Lillian Tarkington and Marion Goebel.

MAUDE J. BAYLES, Scribe.

Troop 7—Mrs. Chester Pyles, Captain.

Troop 7 met also in St. Mark's Church. Nine were present and they were divided into two half-patrols, which will be filled up to the required number—eight each—within the next two weeks. An election was held, which gave the following officers: Patrol 1, Miss Louise Arnold, patrol leader; corporal, Laura Miller; Patrol 2, Miss Lavinia Pohle; corporal, Estelle Stockman; troop scribe, Miss Margaret Ramsey; color bearer, Olive Ramsey; secretary, Laura Merrill; treasurer, Mazie Fries. L. B. Miller is giving instruction in semaphore.

MARGARET RAMSEY, Scribe.

Troop 5—Takoma Park—Mrs. J. D. Eggleston.

Troop 5 at its meeting last week made plans for its Christmas work, and decided to continue the work of collecting supplies for the family it had helped so successfully after the home was destroyed by fire. It also arranged to distribute Christmas baskets among poor families in Takoma Park, the girls doing the work. A basket ball game followed the meeting.

E. C. TOBIAS, Scribe.

SCIENCE BEGINS AT HOME

II.—Light and Heat.

By Frederic J. Haskin.

The typical American household proceeds on a hit-or-miss principle that results in a measure of efficiency only when it follows some age-old rule, or else by pure chance. Such is the only conclusion to be drawn from the results of an investigation just completed by the United States bureau of standards.

For instance, it is considered good form in the best circles to keep the various stoves in the household black. Not one woman in ten knows why she does it. A black stove is undoubtedly more ornamental than one which is rusty brown, but proceeding on esthetic principles solely, a pale yellow or nile green might be more decorative than either. Heating stoves really are blackened because a black stove is the hottest kind of a stove there is. It is no more than a cold scientific fact that if you nickel-plate a stove you cut its heat-giving capacity in half.

This property of black things to give and take heat readily means that when you want to carry heat without losing it, as in hot-water pipes, you must see that the pipes are bright and shining. This is so true, that science has shown that a bright hot-water pipe loses less heat than one insulated in a thin asbestos coating. For the same reason pots and pans kept bright will stay hot longer. The ideal kettle is black on the bottom, to take heat easily, and bright on the sides, to hold it long.

* * *

The various kinds of fuels available for kitchen and general household heating are used too often without a clear understanding of their fitness for the particular purpose involved. On a purely theoretical basis, soft coal and wood are the most economical fuels by far, in districts where their price is anywhere near the average.

Wood and Soft Coal Are More Economical.

Wood fires do not last, however, and a coal fire takes half an hour of preliminary maneuvering to get enthusiasm enough to fry an egg. Gas is expensive, but quick and clean. The gas flame should hence be used in culinary skirmishes, when heat is needed for a short time in a limited area; but for major cooking campaigns and assaults on a whole dinner soft coal is just about ten times as economical. Such an estimate, of course, does not consider the factor of convenience. To secure this latter in a high degree some people are even cooking with electricity, which is about twenty times as expensive as gas.

The gas flame can be rendered more economical and effective by a little understanding of its personal peculiarities. What you burn is really not gas, but an air-gas mixture, and the amount of air should be carefully regulated by means of the little damper at the base of the burner. If you have too much air, or not enough, the gas is only partially burned, a condition which is both wasteful and dangerous to health, because the partly burned gases are poisonous. For this reason, a flue over a gas stove to carry away the invisible products of combustion is a good thing, but careful regulation of the air supply will prevent the forming of the harmful vapors, and give you a hundred cents' worth of heat for every dollar on the bill. A gas flame consists of two parts: a central blue-green portion, surrounded by yellow flame. You will know that your air supply is right when the blue-green portion is half the height of the flame.

* * *

Actual cooking is only a small part of the household heating problem. The furnace eats several times as much coal as the range,

Handling Furnace to Get Most Heat.

and it is worth a little study to keep much of that coal from flying up the chimney to heat the circumambient atmosphere. Furnace coal is cheaper in the smaller sizes, and many furnaces work better on small coal, so that to feed your furnace with coal too large for it is a double waste. The furnace flues and heating surfaces should be kept several times cleaner than the majority of them are. Whether the system works by hot water, or steam, or air, it must heat its conducting material in some sort of reservoir. To let that reservoir get plastered with soot is taking considerable pains to insulate it effectively. The principle is the same as though you put an asbestos mat between your coffee pot and the stove.

The successful solving of the winter heating problem, in most climates, makes the difference between comfort and annoyance for six months in the year. It is a double problem, of which one side is rarely given its true importance. The house must be heated, and ventilated as well. Most winter ventilation is faulty and fortuitous. There is a tendency to regard the outside air as a subtle intruder who steals into the coal bin and spirits away its contents. As a matter of fact, it can be stated almost absolutely, with a backing of scientific authority, that the open window does not affect the coal bill. All the fresh air that one person needs can be admitted from outdoors when the temperature is freezing and raised to a comfortable room heat of 70 degrees at a daily expense of seven-tenths of one cent. The windows to be opened should, of course, be selected so as to avoid the direct path of a northeastern gale, but a great deal more latitude is both desirable and profitable in this connection.

Investigations by the government will give you an idea of what your house should cost you to heat. If the average winter temperature is 45 degrees, which represents a fairly cold winter, it should take a little more than a ton of coal per room for the season. If your house is one of a row it will require less, if small and isolated, relatively more.

With the coming of winter, the lighting question again assumes important proportions. Improvements in house-lighting are developed so rapidly that few of us keep up with the times. A consideration of the common methods of lighting shows that gas, burned through a good mantle, is the cheapest of all. Fod electric lighting, the tungsten bulb leads the procession. The United States bureau of standards makes the statement that no consumer can afford to use carbon filament electric lamps, even if he were paid a bonus for doing so. The tungsten filament is very economical of current. In the last year or two the old objection of great fragility, which still keeps many householders from installing them, has been largely done away with, as their use in electric cars, continually bumping over cross tracks, goes to show.

* * *

In judging the excellence of a light in your parlor or sitting room there are several fine points of the game to be borne in mind.

How to Judge Excellence of Light.

One is that the light which looks bright when you look at it is not necessarily a good light. In fact, it is probably a bad light; certainly so, until it is properly shaded and reflected. To judge the real value of a lamp or light bulb, see how well you can read in the corners of the room.

The shade is a highly essential part of any lighting device. It should diffuse the light rays over the room until every part is as bright as every other part. This is the ideal condition, even for reading or sewing. A concentrated illumination that centers on your book or fancy work is bad, though admittedly better than a diffused light which is too dim all over. The bulb or mantle itself should not be permitted to show any more than is quite unavoidable. Some idea of what proper shading does may be gotten by considering the fact that the filament in a tungsten lamp has a glare of 1,000 candle power to the square inch. In other words, if you happen to look squarely at it, your retina gets a jolt that rocks its foundations. Surround the same tungsten bulb with a frosted globe, and so immensely is the surface area increased that no part of the globe has a luminous intensity of more than two or three candle power to the square inch. A soft mellow glow and optical security are the results.

Illuminating engineers find that in meeting the demand for household lighting designs the esthetic element is coming to be more and more regarded. People want lighting systems that are an ornament to their homes. Inasmuch as most artistic lighting is based on the principle of a soft and diffused glow, this tendency is a good thing.

The indirect lighting system, which swings the shade below the light and illuminates the room by reflection from the ceiling, is becoming popular in various modifications. Such a system has great decorative possibilities, but in the various reflections which the light undergoes, it loses from a quarter to a half of its efficiency. It is possible to handle a direct system so as to produce excellent results at a low expenditure of current. The things to be sought are a diffused, even light, and an absence of glare.

In using all the various devices for lighting and heating the consumer should never fail to keep an understanding eye on the business end of the situation, in the shape of the various meters. The methods of reading electric, gas and water meters are similar and very simple. By applying them, it is possible to determine if there is leakage on any of these circuits, how much each individual device requires for its operation in cents per hour, whether the company concerned is making any mistakes in its monthly bill, and finally, in the case of the electric meter, whether the meter itself is correct. In this way the man who pays the bills may know what he is paying for, not in a general way, but down to the least particular. Then he can decide whether or not it is worth the price.

SCIENCE NOTES.

Gen. W. C. Gorgas will be presented with the gold medal of the Geographic Society of Chicago at its meeting in the Congress Hotel, Chicago, January 8.

The December meteoric shower is now visible to observers who may watch the heavens. These showers from the constellation Gemini are sometimes extremely active and on the 12th reached the period of maximum and furnished twenty or thirty meteors per hour for one observer.

At the annual meeting of the Hornaday Society, London, Sir Robert Hadfield was elected president.

At the University of Kansas Dr. C. H. Ashton has been promoted from an associate professorship to a full professorship of mathematics.

For a long time scientists decided that the origin of the peninsula of Florida was from the successive growth of coral reefs along its southern margin. But recent geological discoveries disclose a limestone foundation which is not the work of corals. This announcement places the Florida plateau in eocene era—probably two million years ago.

Dr. William Ophils, professor of pathology, has been appointed acting dean of the Stanford Medical School in place of Dr. R. L. Wilbur, whose term as president of Stanford University begins January 1, 1916.

The prize of the Martin Bruner foundation in Nurnberg has been awarded to Dr. Jakob Wolff of Berlin for his work on cancer.

Miss Gertrude I. McCain has been appointed professor of mathematics in the Western College for Women, Oxford, Ohio.

M. Maurice Coullink, professor of organic evolution in the University of Paris and president of the Zoological Society of France, has been appointed exchange professor from the French University at Harvard University and will lecture at Cambridge during the second semester.

Charles C. Willoughby has been appointed director of the Peabody Museum of American Archeology of Howard University.

King George of England has been pleased to approve the following awards made this year by the president and council of the Royal Society of England: A royal medal to Prof. Sir Joseph Lamar, F. R. S., for his numerous and important contributions to mathematical and physical science; a royal medal to Dr. W. H. R. Rivers, F. R. S., for his important contributions to ethnography and ethnology. The following awards have also been made by the president and council: The Copely medal to Prof. Ivan Petrovitch Pavlov for his investigation in physiology of digestion and of the higher centers of the nervous system; the Davy medal to Prof. Paul Sabatiez for his researches on contact action and application of finely divided metals as catalytic agents, and the Hughes medal to Prof. Paul Langevin for his important contributions to and pre-eminent position in electrical science.

The English admiralty announces that Staff Surgeon G. M. Levick has been specially promoted to the rank of fleet surgeon for his services with the British antarctic expedition in 1910.

Mrs. Russell Sage has given Syracuse University a fund to build a college of agriculture as a memorial to her father, Joseph Slocum.

Review.

From Judge.

"You musn't comment impolitely. You might be heard. That lady is Mrs. Ludley, the great philanthropist and society leader!"

"What if it is? I can look just as cross as she does if I try hard enough."

GOOD REASON.

Tele—"Why is he boosting 'back to the land' movement with such great vim?"

Phone—"He took a sea trip and got sick and he vowed if he lived he would be for the land all the time."